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Validity expires on 31.05.2022

Proceedings of the State Environment Impact Assessment Authority Kerala

Present: Prof. (Dr.) K.P. Joy, Chairman; Dr. J. Subhashini, Member and Sri. James Varghese, I.A.S., Member Secretary.

Sub: SEIAA- Environmental clearance for the quarry project in Sy. No. 324/4(P), 324/5(P) & 325/15(P) at Pattimattom Village, Kunnathunadu Taluk, Ernakulam District for M/s. Cement Bricks & Allied Industries and the quarry project in Sy.No. 317/2, 317/4 & 324/5(P) at Pattimattom Village, Kunnathunadu Taluk, Ernakulam District for M/s. Kizhakkambalam Granites by Sri. Paul Varghese - EC granted – Orders issued.

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY, KERALA

No. 724/SEIAA/KL/6074/2014 ***Dated,Thiruvananthapuram 01.06.2017***

Ref: 1. Application dated 23.12.2014 from Sri. Paul Varghese, M/s. Cement Bricks & Allied Industries & M/s. Kizhakkambalam Granites
2. Minutes of the 53rd meeting of SEAC held on 25th & 26th February, 2016.
3. Minutes of the 60th meeting of SEAC held on 28th & 29th July, 2016
4. Minutes of the 66th meeting of SEAC held on 19th December, 2016.
5. Minutes of the 64th meeting of SEIAA held on 23rd February 2017.

ENVIRONMENTAL CLEARANCE NO.38/2017

Sri. Paul Varghese, M/s. Cement Bricks & Allied Industries / M/s. Kizhakkambalam Granites, Mekkamkunnel House, Vilangu P.O, Kizhakkambalam Village, Kunnathunadu Taluk, Ernakulam District, Kerala – 683 561 vide his application received on 23.12.2014, has sought Environmental Clearance under EIA Notification, 2006 for the proposed building Stone Quarry project in Sy. No. 324/4(P), 324/5(P) & 325/15(P) at Pattimattom Village, Kunnathunadu Taluk, Ernakulam, for M/s. Cement Bricks & Allied Industries and quarry project in Sy.No.317/2, 317/4 & 324/5(P) at Pattimattom Village, Kunnathunadu Taluk, Ernakulam, for M/s. Kizhakkambalam Granites, for a total area of 3.263 Hectares (M/s. Cement Bricks & Allied Industries has a Lease area: 2.0220 Ha and Capacity - 200 TPD; M/s. Kizhakkambalam Granites has Lease area: 1.2410 Ha. With Capacity-400 TPD). The project comes under Category B, Activity 1(a), (i) as per the Schedule of EIA Notification 2006 (since it is below 50 hectares) and as per O.M. No. L-11011/47/2011-IA.II(M) dated 18th May 2012 of Ministry of Environment and Forests.

The proposed project site falls within N 10° 02" 21.69" - N 10°02" 31.4" E 76°26" 6.17" - E 76°26" 13.3". The lease area consists of 3.263 hectares, which is own and *patta* lease land. The proposed project is for quarrying of 600 tpd of building stone.

BASIC INFORMATION OF QUARRY PROJECT

Cement Bricks & Allied Industries

PART A

I. Project details		
1.	File No.	724/SEIAA/KL/6074/2014
2.	Name /Title of the project	Quarry of M/s Cement Bricks & Allied Industries
3.	Name and address of project proponent.	Paul Varghese, Managing Partner of Cement Bricks & Allied Industries, Meckamkunnel House, Vilangu P.O, Kizhakkambalam.
4.	Owner of the land	Paul Varghese & M V Thomas
5.	Survey No. District/Taluk/ and Village etc.	324/5(pt), 324/4(pt) & 325/15(pt) Pattimattom Village, Kunnathunadu Taluk, Ernakulam Dist., Kerala State
6.	Nature of the proposal – lease or permit with evidence.	Lease No.67/2007/-08/2765/M3/2007dated 03/05/2007
7.	Date of submission of Application	16.12.2014
8.	Brief description of the project.	Quarrying and Crushing operation of M/s.Cement Bricks & Allied Industries
9.	Details of Authorized Signatory and address for correspondence	Paul Varghese,Managing Partner of Cement Bricks & Allied Industries, Vilangu P O, Kizhakkambalam.
II. Land Details		
10.	a) Extent of area in hectares	2.0220 Hectares
11.	b) Is the property forest land/Govt. land/own land/patta land	Own Land
	c) Quantity of top soil/over burden produced and managed	Nil, Lease area is exposed with rock
	d) Latitude and Longitude	N-10°02'25.55"-N 10°02 31.4" E-76°26'8.05"-E 76°26'13.3"
	e) Topography of land and elevation	The granite deposits occur in an elevated terrain with the surface RL ranges from +43.5m AMSL to +47.5m AMSL
	f) Slope analysis	45°
	g) Will there be any significant land disturbance resulting in soil erosion, subsidence & natural drainage.	No
	h) Access road to the site width and condition	6.5 m road
	i) Will there be any adverse impact on the aesthetics of the proposal site	No.

III. Mining details		
	a) Minimum and Maximum height of excavation.	Upto -40m AMSL, Maximum & minimum Dept: 87.5 & 83.5m
	b) Life of mine proposed.	7 years
	c) Underground mining if any proposed	No
	d) Method of Mining	Mechanized Open cast
	e) Distance from the adjacent quarry	Quarry of Kizhakkambalam Granites working as contiguous mine
	f) Cluster condition if any	N A
	g) Has "No cluster certificate" submitted?	N A
	h) Distance from nearby habitation	101 mtr.
	i) Distance from nearby forest, if applicable	N A
	j) Distance from protected area, Wildlife Sanctuary, National Park etc.	N A
	k) Distance from nearby streams/rivers/National Highway and Roads	Periyar canal - 2 km(E) Periyar river – 9 km(N) Main road – 1 km(S)
	l) Is ESA applicable? If so distance from ESA limit	N A
	m) Has approved mining plan, prepared by RQP submitted?	Yes
	n) Capacity of production in TPA	50000 M T
	o) Details of mining process	Mechanized open cast mining comprising drilling using Jack Hammer drills, blasting and deployment of hydraulic excavator/loader and tippers, dumpers for transport
IV. Details of Project cost		
	a) Land cost	1.82 crores
	b) Plant and Machinery	1 crore
	c) Total Cost	2.82 crores
	V. Financial Statement including funding sourceand details of insurance etc.	Bank over draft- 30 Lakhs
	Management Plan	Air Pollution: -Controlled Blasting -proper maintenance of machinery -dust suppression -green belt Water Pollution: -No process effluent -for domestic effluents, septic tanks with soaks pits are provided -No intersection with ground water table Noise: -Tress act as

			acoustic barriers -proper and regular maintenance of machinery -providing earplugs or ear muffs to workers
		Solid Waste Management	-no Over Burden -Used oil disposed off through authorized recyclers
		Eco-restoration	-providing green belt -afforestation
	VI. Whether Environment Management Plan or Eco restoration Plan satisfactory?	Yes	
	VII. Does it suggest mitigation measures for each activity	Yes	
	VIII. If Pre-Feasibility Report (PFR) satisfactory	Yes	
	IX. Does it need public hearing	No	
	X. Details of litigation and Court verdict if any	No	
	XI. Details of public complaint, if any	No	
	XII. Details of statutory sanction required	Panchayath License, Mining Lease, Explosives license and Pollution Control Board certificate.	
	XIII. If CRZ recommendation applicable?	NA	
	PART B **Environment Impact Assessment and Mitigation Measures**		
	Impact on water		
	a) Details of water requirement per day in KLD	14 KLD	
	b) Water source/sources.	Own open Well	
	c) Expected water use per day in KLD.	14 KLD	
	d) Details of water requirements met from water harvesting.		
	e) What are the impacts of the proposal on the ground water?	No impact as there is no intersection with ground water table	
	f) How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	No waste water as there is no process waste	
	g) What is the incremental pollution load from waste water generated from the proposed activities?	Nil	
	h) How is the storm water from within the site managed?	NA	

			for construction of houses to the local residents	15
		6.	Maintenance of roads	
		7.	Providing provisions for needy local residents	5
			Total	50
	d) What are the projects benefits in terms of employment potential?		Direct employment to 50 people and indirect employment to more than 100 persons by both working quarries	
	PART C			
	Details of NABET approved EIA Consultant engaged-Their name, address and accreditation details		Creative Engineers & Consultants 9/4B, Barathwajar street, East Tambaram, Chennai – 600 059 NABET Accredited, NABL Accredited Testing Laboratory and ISO 9001:2008 certified company	
	Summary and Conclusion			
	a) Overall justification for implementation of the project.		The 2 adjacent quarry and crusher working has brought about properity and improvements in physical and social infrastructures in the area like:- -Direct employment to more than 50 persons - In direct employment to more than 100 persons - Financial gains to the state and central govt through collection of various taxes and royalties etc -Increase in general awareness of the people -Improvement of the general living standard of the people in the vicinity -Overall improvement in in Human Development Index -Growth of Allied industries in the area -Reduction in migration of local people and at the same time increase in inflow from outside. -Improvement in Per Capita Income -Providing certain facilities for the Local schools and panchayat In short, the working mining project has benefited this region in the fields	

		of potential employment opportunities, improved per capita income for local people, improved social welfare facilities like infrastructural build up etc. The project proponent has already spent good amount for various social welfare measures. Besides, under their well planned CSR initiatives, in future also, such beneficial activities for local community development will form an integral component of their social out reaching activities.
	b) Explanation of how adverse impact has been mitigated.	No adverse impact has risen due to the functioning of the quarry and crusher. A well planned Environmental management plan has been adopted to avoid any adverse impacts due to the working of the project.

BASIC INFORMATION OF QUARRY PROJECT

Kizhakkambalam Granites

PART A

	I. Project details	
1.	File No.	724/SEIAA/KL/6074/2014
2.	Name /Title of the project	Quarry of M/s Kizhakkambalam Granites
3.	Name and address of project proponent.	Paul Varghese, Partner of Kizhakkambalam Granites, Meckamkunnel House, Vilangu P.O, Kizhakkambalam.
4.	Owner of the land	M V Thomas, Alex Vity Thomas & Varghese Paul
5.	Survey No. District/Taluk/ and Village etc.	324/5(pt), 317/2 and 317/4, Pattimattom Village, Kunnathunadu Taluk, Ernakulam Dist., Kerala State
6.	Nature of the proposal – lease or permit with evidence.	Lease: Existing Lease No.764/2005-06/2513/M3/06
7.	Date of submission of Application	16.12.2014
8.	Brief description of the project.	Quarrying and Crushing operation of M/s. Kizhakkambalam Granites
9.	Details of Authorized Signatory and address for correspondence	Paul Varghese, Partner of Kizhakkambalam Granites, Meckamkunnel House, Vilangu P.O, Kizhakkambalam.
	II. Land Details	
10.	a) Extent of area in hectares	1.2410 Hectares
11.	b) Is the property forest land/Govt. land/own land/patta land	Own Land
12.	c) Quantity of top soil/over burden produced and	Nil, Lease area is exposed with rock

	managed	
13.	d) Latitude and Longitude	N-10°02'21.7"- 10°02'25.9" E-76°26'06.17"- 76°26'13.3"
14.	e) Topography of land and elevation	The granite deposits occur in an elevated terrain with the surface RL ranges from +43m AMSL to +46m AMSL
15.	f) Slope analysis	45°
16.	g) Will there be any significant land disturbance resulting in soil erosion, subsidence & natural drainage.	No
17.	h) Access road to the site width and condition	6.5 m road
18.	i) Will there be any adverse impact on the aesthetics of the proposal site	No.
III. Mining details		
19.	a) Minimum and Maximum height of excavation.	Upto 00m AMSL, Maximum & minimum Dept. 46m to 43m
20.	b) Life of mine proposed.	6 years
21.	c) Underground mining if any proposed	No
22.	d) Method of Mining	Mechanized Open cast
23.	e) Distance from the adjacent quarry	Quarry of Cement Bricks & Allied Industries working as contiguous mine
24.	f) Cluster condition if any	N A
25.	g) Has "No cluster certificate" submitted?	N A
26.	h) Distance from nearby habitation	104 mtr.
27.	i) Distance from nearby forest, if applicable	N A
28.	j) Distance from protected area, Wildlife Sanctuary, National Park etc.	N A
29.	k) Distance from nearby streams/rivers/National Highway and Roads	Periyar canal - 2 km(E) Periyar river – 9 km(N) Main road – 1 km(S)
30.	l) Is ESA applicable? If so distance from ESA limit	N A
31.	m) Has approved mining plan, prepared by RQP submitted?	Yes
32.	n) Capacity of production in TPA	50000 M T
33.	o) Details of mining process	Mechanized open cast mining comprising drilling using Jack Hammer drills, blasting and deployment of hydraulic excavator/loader and tippers, dumpers for transport
IV. Details of Project cost		
34.	a) Land cost	1.12 crores
35.	b) Plant and Machinery	1 crore
36.	c) Total Cost	2.12 crores
37.	V. Financial Statement including funding sourceand details of insurance etc.	Bank over draft- 40 Lakhs
38.	Management Plan	Air Pollution -Controlled

			Blasting -proper maintenance of machinery -dust suppression -green belt
		Water Pollution	-No process effluent -for domestic effluents, septic tanks with soaks pits are provided -No intersection with ground water table
		Noise	-Tress act as acoustic barriers -proper and regular maintenance of machinery -providing earplugs or ear muffs to workers
		Solid Waste Management	-no Over Burden -Used oil disposed off through authorized recyclers
		Eco-restoration	-providing green belt -afforestation
39.	**VI.** Whether Environment Management Plan or Eco restoration Plan satisfactory?	Yes	
40.	**VII.** Does it suggest mitigation measures for each activity	Yes	
41.	**VIII.** If Pre-Feasibility Report (PFR) satisfactory	Yes	
42.	**IX.** Does it need public hearing	No	
43.	**X.** Details of litigation and Court verdict if any	No	
44.	**XI.** Details of public complaint, if any	No	
45.	**XII.** Details of statutory sanction required	Panchayath License, Mining Lease, Explosives license and Pollution Control Board certificate.	
46.	**XIII.** If CRZ recommendation applicable?	NA	
PART B **Environment Impact Assessment and Mitigation Measures**			
Impact on water			
47.	a) Details of water requirement per day in KLD	14 KLD	

48.	b) Water source/sources.	Own open Well
49.	c) Expected water use per day in KLD.	14 KLD
50.	d) Details of water requirements met from water harvesting.	
51.	e) What are the impacts of the proposal on the ground water?	No impact as there is no intersection with ground water table
52.	f) How much of the water requirement can be met from the recycling of treated waste water? (Facilities for liquid waste treatment)	No waste water as there is no process waste
53.	g) What is the incremental pollution load from waste water generated from the proposed activities?	Nil
54.	h) How is the storm water from within the site managed?	NA
	Impact on Biodiversity and Eco restoration Programmes	
55.	a) Will the project involve extensive clearing or modification of vegetation (Provide details)	Entire mining area is exposed, hence no clearing or modification is required
56.	b) What are the measures proposed to minimize the likely impact on vegetation (details of proposal for tree plantation/ landscaping)	-Green belt given at the quarry boundaries -saplings planted and maintained
57.	c) Is there any displacement of fauna – both terrestrial and aquatic. – If so what are the mitigation measures ? d) Presence of any endangered species or red listed category (in detail)	NA NA
	Impact on Air Environment	
58.	a) What are the mitigation measures on generation of dust, smoke and air quality	-Dust suppression by sprinkling of water -proper maintenance of machinery and related equipments
59.	b) Details of internal traffic management of the site.	Proper maintenance of haul roads and other roads
60.	c) Details of noise from traffic, machines and vibrator and mitigation measures	Ambient noise levels shows existing levels are within statutory limits
61.	d) Impact of DG sets and other equipments on noise and vibration and ambient air quality around the project site and mitigation measures	-DG sets with acoustics enclosure are used - Vibration levels due to blasting is controlled by optimum design for spacing & burden, inclined drilling practice, proper deck charging practice, using delay detonators
62.	e) Air quality monitoring in detail	This being a small quarrying operation and the 2 adjacent quarry leases are worked together, the environmental monitoring programme, implementation of statutory requirements are done in

<table>
<tr><td></td><td></td><td>tandem. The mines manager will take care of all the environmental related works also. Monitoring schedules are planned for systematic study of various pollution levels with respect to Air & Water qualities, noise levels etc to ensure that they conform to the standards laid down by the Environmental Protection Act and various Central & State Pollution control board limits.</td></tr>
<tr><td colspan="3">Energy Conservation</td></tr>
<tr><td>63.</td><td>a) Details of power requirement and source of supply.</td><td>No electricity is needed for quarry operations as only diesel operated mining machinery are used. Negligible power requirement of the administrative building, air compressors etc are met from state grid. Besides standy by generator of 125 KVA is available to meet the emergency power requirements of the mines.</td></tr>
<tr><td>64.</td><td>b) Details of renewable energy (non – conventional) used.</td><td>Nil</td></tr>
<tr><td colspan="3">Risk Management</td></tr>
<tr><td>65.</td><td>a) Are there sufficient measures proposed for risk hazards in case of emergency such as accident at the site?</td><td>Yes</td></tr>
<tr><td>66.</td><td>b) Are proposals for fencing around the quarry satisfactory?
c) Storage of explosives/hazardous substance in detail
d) Facility for solid waste management</td><td>Fencing already done around quarry
Explosives are stored in Magazines with proper safety measures and supervision.
No generation of Solid waste</td></tr>
<tr><td colspan="3">Socio Economic Impacts</td></tr>
<tr><td>67.</td><td>a) Will the project cause adverse effects on local communities disturbance to sacred sites or other cultural values. What are the safe guards proposed?</td><td>No</td></tr>
<tr><td>68.</td><td>b) Will the proposal result in any changes to the demographic structure of local population. If so, provide details.</td><td>No.</td></tr>
<tr><td>69.</td><td>c) Are the CSR proposals satisfactory. Give details</td><td>Common CSR Activities already carried out
<table><tr><th>Sl.No</th><th>Particulars</th><th>Amount in Rs.in lakhs</th></tr><tr><td>1.</td><td>Extending Educational aid</td><td>5</td></tr><tr><td>2.</td><td>Providing note books,</td><td>2.5</td></tr></table></td></tr>
</table>

			bags etc for students	
		3.	Infrastructure development of nearby school	2.5
		4.	Providing Medical aid to destitute and local residents	5
		5.	Area development by providing Granite aggregates for construction of houses to the local residents	15 15
		6.	Maintenance of roads	
		7.	Providing provisions for needy local residents	5
			Total	50
70.	d) What are the projects benefits in terms of employment potential?		Direct employment to 50 people and indirect employment to more than 100 persons by both working quarries	
	PART C			
71.	Details of NABET approved EIA Consultant engaged-Their name, address and accreditation details		Creative Engineers & Consultants 9/4B, Barathwajar street, East Tambaram, Chennai – 600 059 NABET Accredited, NABL Accredited Testing Laboratory and ISO 9001:2008 certified company	
	Summary and Conclusion			
72.	a) Overall justification for implementation of the project.		The 2 adjacent quarry and crusher working has brought about properity and improvements in physical and social infrastructures in the area like:- -Direct employment to more than 50 persons - In direct employment to more than 100 persons - Financial gains to the state and central govt through collection of various taxes and royalties etc	

		-Increase in general awareness of the people -Improvement of the general living standard of the people in the vicinity -Overall improvement in in Human Development Index -Growth of Allied industries in the area -Reduction in migration of local people and at the same time increase in inflow from outside. -Improvement in Per Capita Income -Providing certain facilities for the Local schools and panchayat In short, the working mining project has benefited this region in the fields of potential employment opportunities, improved per capita income for local people, improved social welfare facilities like infrastructural build up etc. The project proponent has already spent good amount for various social welfare measures. Besides, under their well planned CSR initiatives, in future also, such beneficial activities for local community development will form an integral component of their social out reaching activities.
73.	b) Explanation of how adverse impact has been mitigated.	No adverse impact has risen due to the functioning of the quarry and crusher. A well planned Environmental management plan has been adopted to avoid any adverse impacts due to the working of the project.

2. The proposal was placed in the 53rd meeting of SEAC Meeting, Kerala, held on 25th & 26th February, 2016. The committee considered the proposal. Since the proponent submitted only one Form - I, followed by 2 mining plans, the proponent was instructed to submit two Form – I in tune with separate mining plans. The Committee deferred the item for revised mining plans and field visit.

Subsequently the proponent submitted two Form – I in tune with separate mining plans.

The site visit was also conducted by the Subcommittee of SEAC on 15.07.2016, comprising Dr. K.G. Padmakumar and Sri. John Mathai. The Proponents and associates were present at the site at the time of site visit. The details of which are given below:

The project is located at about 1 km north of Njaralloor on the Kizhakkambalam Pattimattom road. On enquiry it was found that the site represents area belonging to two sister companies with an area of 1.24 ha and 2.021 ha and lease period up to 2017 and 2018. Though two plans and two feasibility reports were given, being adjacent sites exploited with no boundaries in between, the site has been appraised together as a single entity. This quarry lease area in own land occupy a slightly elevated part exposing hard rock. Boundary pillars of both projects are erected with some of them falling in the working pit of the quarry area. The eastern and northern parts are almost completely exploited with the presence of very steep cuttings. On the western side is the crusher unit and the office. The main haulage into the working pit is through a descending winding road. The rock type is variants of charnockite. The storm water from the entire area is likely to flow into the pit and has to be pumped out for working. Rubber plantation is the dominant landuse in the vicinity. Floral and faunal biodiversity is not observed as the area is cleared of natural vegetation. Dwelling units are seen in the vicinity but not within 100 m.

Based on an overall evaluation of the site, following aspects may be considered before it is recommended for EC:

1. *The quarrying activity must start afresh from the southern part by providing benches from the upper most part and proceed down the slope.*
2. *The steep cuttings on the east and north are to be fenced and marked as danger zones.*
3. *The existing pit in the central part may be transformed into a RWH structure such that water can be used.*
4. *The green belt left on the eastern part is to be maintained.*
5. *The use of winding haulage that descends into the existing pit must be eased out in phases*
6. *The CSR activity needs revision addressing the needs of the locality.*
7. *Certificate that the land is not assigned for any special purpose is to be given*

3. The 60th meeting of SEAC held on 28th& 29th July, 2016 considered the proposal and the Committee after examining the mining plan, prefeasibility report, field inspection report and all other documents submitted decided to defer the item that the proponent was asked to submit the above additional documents

4. The proposal was placed in the 66th meeting of SEAC held on 19th December, 2016. The Committee appraised the proposal based on Form I, Pre-feasibility Report, Mining Plan, field inspection report of the Sub Committee and all other documents submitted with the proposal. The Committee decided to Recommend for issuance of EC subject to general conditions in addition to the following specific conditions for mining.

1. *The quarrying activity must start afresh from the southern part by providing benches from the upper most part and proceed down the slope.*
2. *The steep cuttings on the east and north are to be fenced and marked as danger zones.*
3. *The existing pit in the central part may be transformed into a RWH structure such that water can be used.*
4. *The green belt left on the eastern part is to be maintained.*

5. *The use of winding haulage that descends into the existing pit must be eased out in phases.*
6. *If any plant species endemic to Western Ghats are noticed in the area they shall be properly protected in situ or by transplanting to an appropriate location inside the lease area.*
7. The proponent should submit more realistic CSR before SEIAA.

5. The Authority considered the proposal in its 64th meeting held on 23.02.2017. The Authority decided to issue Environmental Clearance subject to the general conditions and the above specific conditions. The proponent should submit an affidavit stating that the above conditions shall be strictly implemented.

6. The proponent has submitted an affidavit on 05.04.2017 satisfying all the above conditions. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed Quarry project of Sri. Paul Varghese, M/s. Cement Bricks & Allied Industries / M/s. Kizhakkambalam Granites, Mekkamkunnel House, Vilangu P.O, Kizhakkambalam Village, Kunnathunadu Taluk, Ernakulam District, Kerala – 683 561 in Sy. No. 324/4(P), 324/5(P) & 325/15(P), Pattimattom Village, Kunnathunadu Taluk, Ernakulam, for M/s. Cement Bricks & Allied Industries and quarry project in Sy.No. 317/2, 317/4 & 324/5(P) at Pattimattom Village, Kunnathunadu Taluk, Ernakulam, for M/s. Kizhakkambalam Granites, for an area of 3.263 Hectares subject to the specific conditions as recommended by SEAC in para 4 above, all the environmental impact mitigation and management measures undertaken by the project proponent in the Form I, EMP, PFR and Mining plan submitted to SEIAA. The assurances and clarifications given by the proponent will be deemed to be a part of these proceedings as if incorporated herein. Also the general conditions for projects stipulated for mining, appended hereto will be applicable and have to be strictly adhered to.

7. The clearance issued will also be subject to full and effective implementation of all the undertakings given in the application form, mitigation measures as assured in the Environment Management Plan and the mining features including progressive mine closure plan as submitted with the application and relied on for grant of this clearance. The above undertakings and the conditions and the undertakings in Chapter 4 (Mining), Chapter 5 (Blasting), Chapter 6 (Mine Drainage), Chapter 7 (Stacking of Mineral Rejects and disposal of waste) Chapter 11 (EMP), Chapter 12 (Progressive Mine Closure Plan) of the Mining Plan as submitted will be deemed to be part of this proceedings as conditions as undertaken by the proponent, as if incorporated herein.

8. Validity of the Environmental Clearance will be five years from the date of this clearance, subject to inspection by SEIAA on annual basis and compliance of the conditions, subject to earlier review of E.C in case of violation or non-compliance of conditions or genuine complaints from residents within the security area of the quarry.

9. Compliance of the conditions herein will be monitored by the State Environment Impact Assessment Authority or its authorised offices and also by the regional office of the Ministry of Environment & Forests, Govt. of India, Bangalore.

i. Necessary assistance for entry and inspection should be provided by the project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.

ii. Instances of violation if any shall be reported to the District collector, Ernakulam to take legal action under the Environment (Protection) Act 1986.

iii. The given address for correspondence with the authorised signatory of the project is Sri. Paul Varghese, M/s. Cement Bricks & Allied Industries / M/s. Kizhakkambalam Granites, Mekkamkunnel House, Vilangu P.O, Kizhakkambalam Village, Kunnathunadu Taluk, Ernakulam District, Kerala – 683 561.

Sd/-

JAMES VARGHESE.I.A.S,
Member Secretary (SEIAA)

To,

Sri. Paul Varghese,
M/s. Cement Bricks & Allied Industries /
M/s. Kizhakkambalam Granites
Mekkamkunnel House, Vilangu P.O,
Kizhakkambalam Village, Kunnathunadu Taluk,
Ernakulam, Kerala – 683 561.

Copy to,

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4th Floor, E&F Wing, II Block, Koramangala, Bangalore-560034.
2. The Additional Chief Secretary to Government, Environment Department, Government of Kerala.
3. Director, Mining & Geology, Thiruvananthapuram -4.
4. District Collector, Ernakulam
5. District Geologist, Ernakulam
6. Secretary, Kizhakkambalam Grama Panchayat, Kizhakkambalam P.O, Ernakulam-683 562
7. Chairman, SEIAA.
8. Website.
9. S/f , 10. O/c

Forwarded/By Order

Administrator, SEIAA

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY KERALA

GENERAL CONDITIONS (for mining projects)

1. Rain Water Harvesting facility should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified.
2. Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
3. Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, including of approach road and internal roads.
4. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
5. Sprinklers shall be installed and used in the project site to contain dust emissions.
6. Eco-restoration including the mine closure plan shall be done at the own cost of the project proponent.
7. At least 10 percent out of the total excavated pit area should be retained as water storage areas and the remaining area should be reclaimed with stacked dumping and overburden and planted with indigenous plant species that are eco-friendly, if no other specific condition on reclamation of pit is stipulated in the E.C.
8. Corporate Social Responsibility (CSR) agreed upon by the proponent should be implemented
9. The lease area shall be fenced off with barbed wires to a minimum height of 4ft around, before starting of mining. All the boundary indicators (boards, stores, markings, etc) shall be protected at all times and shall be conspicuous.
10. Warning alarms indicating the time of blasting (to be done at specific timings) has to be arranged as per stipulations of Explosive Department.
11. Control measures on noise and vibration prescribed by KSPCB should be implemented.
12. Quarrying activities should be limited to day time as per KSPCB guidelines/specific conditions.
13. Blasting should be done in a controlled manner as specified by the regulations of Explosives Department or any other concerned agency.
14. A licensed person should supervise/ control the blasting operations.
15. Access roads to the quarry shall be tarred to contain dust emissions that may arise during transportation of materials.
16. Overburden materials should be managed within the site and used for reclamation of mine pit as per mine closure plan / specific conditions.
17. Height of benches should not exceed 5 m, and width should not be less than 5 m, if there is no mention is the mining plan/specific condition.
18. Mats to reduce fly rock blast to a maximum of 10 PPV should be provided.
19. Maximum depth of mining from general ground level at site shall not exceed 10m
20. No mining operations should be carried out at places having a slope greater than 45°.
21. Acoustic enclosures should have been provided to reduce sound amplifications in addition to the provisions of green belt and hollow brick envelop for crushers so that the noise level is kept within prescribed standards given by CPCB/KSPCB.
22. The workers on the site should be provided with the required protective equipment such as ear muffs, helmet, etc.
23. Garland drains with clarifiers to be provided in the lower slopes around the core area to channelize storm water.
24. The transportation of minerals should be done in covered trucks to contain dust emissions.
25. The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
26. Disposal of spent oil from diesel engines should be as specified under relevant Rules/ Regulations.
27. Explosives should be stored in magazines in isolated place specified and approved by the Explosives Department.
28. A minimum buffer distance of 100m from the boundary of the quarry to the nearest dwelling unit or other structures, not being any facility for mining shall be provided.
29. 100 m buffer distance should be maintained from forest boundaries.

30. Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating mining activity.

31. All other statutory clearances should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.

32. In the case of any change(s) in the scope of the project, extent quantity, process of mining technology involved or in any way affecting the environmental parameters/impacts as assessed, based on which only the E.C is issued, the project would require a fresh appraisal by this Authority, for which the proponentshall apply and get the approval of this Authority.

33. The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

34. The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

35. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environment Impact Assessment Authority (SEIAA) office and may also be seen on the website of the Authority at www.seiaakerala.org. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.

36. A copy of the clearance letter shall be sent by the proponent to concerned Grama Panchayat/ District Panchayat/ Municipality/Corporation/Urban Local Body and also to the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.

37. The proponent shall submit half yearly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) and upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also to the State Environment Impact Assessment Authority (SEIAA) office.

38. The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40.Sign board with extent of lease area and boundaries shall be depicted at the entrance of the quarry, visible to the public

39. The proponent should provide notarized affidavit (indicating the number and date of Environmental Clearance proceedings) that all the conditions stipulated in the EC shall be scrupulously followed.

40. No change in mining technology and scope of working should be made without prior approval of the SEIAA, No further expansion or modifications in the mine shall be carried out without prior approval of the SEIAA, as applicable.

41. The Project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. Necessary safeguard measures to protect the first order streams, if any, originating from the mine lease shall be taken.

42. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.

43. The top soil, if any, shall temporarily be stored at earmarked site(s) only for the topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The maximum height of the dumps shall not exceed 8m and width 20m and overall slope of the dumps shall be maintained to 45^0. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining.

44. Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.

45. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM_{10} and $PM_{2.5}$ such as haul Road, loading and unloading points and transfer points – it shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

46. Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.

47. Measures should be taken for control of noise levels below 85 dBA in the work environment.

48. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

49. The funds earmarked for environmental protection measures and CSR activate should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the State Environment Impact Assessment Authority (SEIAA) office.

50. The Regional Office of MOEF & CC located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (S) of the Regional Office by furnishing the requisite data/information/monitoring reports.

51. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

52. Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

53. The SEIAA may revoke or suspend the order, for non implementation of any of the specific or thisimplementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

54. The above conditions shall prevail notwithstanding anything to the contrary, in consistent, or simplified, contained in any other permit, license on consent given by any other authority for the same project.

55. This order is valid for a period of 5 years or the expiry date of mine lease period issued by the Government of Kerala, whichever is earlier.

56. The Environmental Clearance will be subject to the final order of the courts in any pending litigation related to the land or project, in any court of law.

57. The mining operation shall be restricted to above ground water table and it should not intersect ground water table.

58. All vehicles used for transportation and within the mines shall have 'PUC' certificate from authorized pollution taking centre. Washing of all vehicles shall be inside the lease area'

59. Project proponent should obtain necessary prior permission of the competent authorities for drawal of requisite quantity of surface water and ground water for the project.

60. Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the six monthly reports to SEIAA.

61. Occupational health surveillance program of the workers should be under taken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

For Member Secretary, SEIAA Kerala